

WHAT IS CLAIMED IS:

1. A secondary power source, which comprises a positive electrode containing activated carbon, a negative electrode containing $\text{Li}_4\text{Ti}_5\text{O}_{12}$, and an organic electrolyte containing a lithium salt.
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2. A secondary power source, which comprises a positive electrode containing activated carbon, a negative electrode containing $\text{Li}_4\text{Ti}_5\text{O}_{12}$ and a carbon material capable of doping and undoping lithium ions, and an organic electrolyte containing a lithium salt.
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3. The secondary power source according to Claim 2, wherein the carbon material contained in the negative electrode has a lattice spacing d_{002} of (002) face of from 0.335 to 0.410 nm as measured by an X-ray wide angle diffraction method.
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4. The secondary power source according to Claim 2, wherein in the negative electrode, the proportion of $\text{Li}_4\text{Ti}_5\text{O}_{12}$ is from 20 to 50 mass%, and the proportion of the carbon material is from 80 to 50 mass%.
- 20 5. The secondary power source according to Claim 1, wherein the electric capacity ratio of the negative electrode to the positive electrode is from 1.05 to 1.8.
6. The secondary power source according to Claim 1, wherein $\text{Li}_4\text{Ti}_5\text{O}_{12}$ contained in the negative electrode has
25 a specific surface area of from 1.0 to 3.0 m^2/g .
7. The secondary power source according to Claim 1, wherein the lithium salt is at least one member selected

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from the group consisting of LiPF₆, LiBF₄, LiClO₄, LiN(SO₂CF₃)₂, LiN(SO₂C₂F₅)₂, LiCF₃SO₃, Li(SO₃CF₃), LiC(SO₂CF₃)₃ and LiPF₃(C₂F₅)₃.

8. The secondary power source according to Claim 1,
5 wherein the organic electrolyte contains a quaternary
onium salt in addition to the lithium salt.

9. The secondary power source according to Claim 8,
wherein the quaternary onium salt contains at least one
quaternary onium ion selected from the group consisting
10 of (C₂H₅)₃(CH₃)N⁺, (C₂H₅)₄N⁺ and (C₂H₅)₄P⁺, and at least one
counter anion selected from the group consisting of PF₆⁻,
BF₄⁻, ClO₄⁻, N(SO₂CF₃)₂⁻, N(SO₂C₂F₅)₂⁻, CF₃SO₃⁻, C(SO₂CF₃)₃⁻
and PF₃(C₂F₅)₃⁻.

10. The secondary power source according to Claim 8,
15 wherein the molar ratio of the quaternary onium ions to
the lithium ions in the organic electrolyte is from 0.3
to 2.

11. The secondary power source according to Claim 2,
wherein the electric capacity ratio of the negative
20 electrode to the positive electrode is from 1.05 to 1.8.

12. The secondary power source according to Claim 2,
wherein Li₄Ti₅O₁₂ contained in the negative electrode has
a specific surface area of from 1.0 to 3.0 m²/g.

13. The secondary power source according to Claim 2,
25 wherein the lithium salt is at least one member selected
from the group consisting of LiPF₆, LiBF₄, LiClO₄,
LiN(SO₂CF₃)₂, LiN(SO₂C₂F₅)₂, LiCF₃SO₃, LiC(SO₂CF₃)₃ and

$\text{LiPF}_3(\text{C}_2\text{F}_5)_3$.

14. The secondary power source according to Claim 2, wherein the organic electrolyte contains a quaternary onium salt in addition to the lithium salt.
- 5 15. The secondary power source according to Claim 14, wherein the quaternary onium salt contains at least one quaternary onium ion selected from the group consisting of $(\text{C}_2\text{H}_5)_3(\text{CH}_3)\text{N}^+$, $(\text{C}_2\text{H}_5)_4\text{N}^+$ and $(\text{C}_2\text{H}_5)_4\text{P}^+$, and at least one counter anion selected from the group consisting of PF_6^- ,
10 BF_4^- , ClO_4^- , $\text{N}(\text{SO}_2\text{CF}_3)_2^-$, $\text{N}(\text{SO}_2\text{C}_2\text{F}_5)_2^-$, CF_3SO_3^- , $\text{C}(\text{SO}_2\text{CF}_3)_3^-$ and $\text{PF}_3(\text{C}_2\text{F}_5)_3^-$.
- 15 16. The secondary power source according to Claim 14, wherein the molar ratio of the quaternary onium ions to the lithium ions in the organic electrolyte is from 0.3 to 2.
17. The secondary power source according to Claim 4, wherein the electric capacity ratio of the negative electrode to the positive electrode is from 1.05 to 1.8.
18. The secondary power source according to Claim 4,
20 wherein $\text{Li}_4\text{Ti}_5\text{O}_{12}$ contained in the negative electrode has a specific surface area of from 1.0 to 3.0 m^2/g .

ABSTRACT OF THE DISCLOSURE

A secondary power source, which comprises a positive electrode containing activated carbon, a negative electrode containing $\text{Li}_4\text{Ti}_5\text{O}_{12}$, and an organic electrolyte
5 containing a lithium salt.